

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-2 (cancelled)

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3. (currently amended) The method of claim 21, wherein the ~~traffic regulation~~ contention signal blocks all end-users or end users of a specific class, the class being defined by one or more of priority, quality of service, or privilege.

4. (currently amended) The method of claim 21, wherein the network has a protocol controlling access to the network, the ~~traffic regulation~~ contention signal being consistent with the protocol.

5. (original) The method of claim 4, wherein the protocol uses one of in-band signals, out-of-band signals or independent channel signals to control access to the network.

6. (currently amended) The method of claim 21, wherein the adjusting comprises: monitoring an amount of unused capacity on the network; and asserting a ~~traffic regulation~~ contention signal in the network if the amount of unused capacity is less than a desired amount.

7. (original) The method of claim 6, wherein the monitoring is performed by media access controllers (MACs) for each media of the network that requires access control, the media access controllers controlling a local reserve capacity of each respective media based on system parameters and monitoring data generated by each of the MACs.

8. (currently amended) The method of claim 7, further comprising:  
exchanging the monitoring data among the MACs; and  
asserting the ~~traffic-regulation~~ contention signals in each of the media to achieve network performance requirements.

9. (original) The method of claim 7, wherein a central regulation controller controls network traffic regulation, the method further comprising:  
receiving in the central traffic regulation controller the monitoring data generated by the MACs, and  
issuing traffic regulation commands from the central traffic regulation controller to the MACs to regulate traffic in each of the media to achieve network performance requirements.

10. (original) The method of claim 7, wherein each of the MACs is one of a dedicated media access controller of an end-user that includes a media access function.

11-12 (cancelled)

13. (currently amended) The system of claim 22, wherein the ~~traffic-regulation~~ contention signal blocks all end-users of the media or end-users of a specific class of the media, the class being defined by one or more of priority, quality of service, or privilege.

14. (currently amended) The system of claim 22, wherein the media has a protocol controlling access to the network, the ~~traffic-regulation~~ contention signal being consistent with the protocol.

15. (previously presented) The system of claim 14, wherein the protocol uses one of in-band signals, out-of-band signals or independent channel signals to control access to the media.

16. (currently amended) The system of claim 22, wherein each of the MACs monitors an amount of unused capacity of a media controlled by each of the MACs, and asserts a ~~traffic regulation~~ contention signal in the media if the amount of unused capacity is less than a desired amount.

17. (previously presented) The system of claim 16, wherein each of the MACs controls a local reserve capacity based on system parameters and monitoring data generated by one of more of the MACs.

18. (currently amended) The system of claim 17, wherein each of the MACs exchanges the monitoring data with other ones of the MACs and asserts the ~~traffic regulation~~ contention signals in reach of the media to achieve network performance requirements.

19. (previously presented) The system of claim 17, further comprising a central traffic regulation controller that controls network traffic regulation, the central traffic regulation controller receives the monitoring data generated by the MACs, and issues traffic regulation commands to the MACs to regulate traffic in each of the media to achieve network performance requirements.

20. (previously presented) The system of claim 17, wherein each of the MACs is one of a dedicated media access controller or an end-user that includes a media access function.

21. (previously presented) A method for regulating traffic in a network, the network including ~~connections having associated access protocols~~ <sup>media</sup> having contention signals used to indicate that a particular user seeks access to the network, the method comprising:

making unavailable an amount of network transmission capacity as reserve capacity, by blocking end-users from gaining access to the network by asserting a ~~traffic regulation~~ the contention signal in a channel of the network, while no particular user seeks access to the media ~~said traffic regulation signal functioning within the access protocols~~; and

adjusting the amount of reserve capacity based on a desired network performance.

C<sup>1</sup> 22. (currently amended) A network traffic regulation system, comprising:

a network that includes media ~~and connections having associated access protocols~~, and;

said media having at least one protocol including a contention signal used to indicate that a particular user seeks access to the media;

media access controllers (MACs); each of the MACs controlling one of more media of the network, each of the MACs

(1) making unavailable an amount of media transmission capacity as reserve capacity, by blocking end-users from gaining access to the network by asserting a ~~traffic regulation~~ the contention signal in a channel of the media controlled by each of the MACs, while no particular user seeks access to the media ~~said traffic regulation signal functioning within the access protocol~~, and

(2) adjusting the amount of reserve capacity based on a desired network performance.